

Tribal Wild Salmon Recovery Efforts

Introduction

Indian tribes have always lived on every major watershed in what is now the State of Washington. From time immemorial, the salmon has been central to tribal cultures.

Today, the wild salmon upon which the tribes have always depended are disappearing. Habitat destruction and degradation from over a century of timber harvesting, dam construction, loss of instream flows, urban development, past overharvesting, over-dependence on hatcheries and other factors have all contributed to the decline of wild salmon. Over the past 25 years, a huge population influx around the Puget Sound has accelerated the loss and degradation of what remains of the region's once highly productive salmon habitat.

The salmon's biological needs are straightforward: an adequate supply of clean water, properly functioning spawning and rearing habitat, access to and from the sea, and a sufficient number of adult salmon returning to spawn. Providing these basic requirements, however, is the most difficult environmental, economic, political and social challenge ever faced by the Pacific Northwest.

In the spring of 1999, National Oceanic and Atmospheric Administration (NOAA) Fisheries listed three western Washington salmon stocks – Puget Sound chinook, Hood Canal/Strait of Juan de Fuca summer chum, and Lake Ozette sockeye – as “threatened” under the Endangered Species Act. The ESA is a law of last resort to save distressed species from extinction, protecting not only listed salmon but also their habitat. The listing was the first of a species that resides in a heavily urbanized area such as Puget Sound, and has placed massive new responsibilities on the treaty tribes as co-managers of the salmon resource.

While the ESA is neither the starting point nor end point for salmon recovery, it is now the filter through which potentially harmful activities are evaluated as individuals, corporations, industries and governments seek to move forward on development plans in a manner consistent with the ESA and the needs of salmon.



A coho salmon battles its way home to spawn.

Photo: D. Preston

Over the past two decades, in response to dwindling populations and reflecting a commitment to sustainable fisheries, tribes and the state have reduced their harvest of salmon by as much as 90 percent. Fishery closures and reductions have resulted in severe economic hardship for tribal fishermen on reservations, where unemployment runs as high as 80 percent.

Improved ocean conditions contributed to larger returns in some areas in recent years, but tribal and state fisheries managers continued to implement conservative harvest plans designed to protect weak wild stocks. Harvest reductions alone cannot stem the decline of wild salmon production caused by lost and degraded habitat, which continues to suppress the overall trend in abundance for wild salmon populations.

The tribes know that the battle to save the salmon cannot be fought alone. Only through cooperation and a shared vision for salmon recovery by tribal, state, federal and local governments, industry, conservation organizations and the public will wild salmon be restored. All are participants in a “Shared Strategy” for salmon recovery now being implemented in western Washington. The Shared Strategy has been endorsed by the NOAA Fisheries as the vehicle to develop recovery plans for threatened salmon stocks throughout Puget Sound, including the Strait of Juan de Fuca.

Tribal, state and federal fisheries managers are integrating management of harvest, hatcheries and habitat through the Shared Strategy in a comprehensive approach that offers the region's best hope for achieving wild salmon recovery.

The Shared Strategy

In the fall of 1999, more than 200 tribal, federal, state and local leaders met to discuss the salmon crisis. They identified common goals for wild salmon and worked to find ways to achieve those goals. Their vision is clear: healthy ecosystems to produce and support wild salmon at a level that will once again sustain commercial, recreational, ceremonial and subsistence harvest. However, without a common approach to achieve that goal, recovery and protection of wild salmon and their habitats will not be achieved.

The Shared Strategy reflects the following core elements necessary to protect and restore wild salmon and their habitats. They include:

- ◆ Sound science to guide and measure recovery efforts;
- ◆ Clear and common goals to unite local, regional and national commitments;
- ◆ Effective planning to develop integrated, efficient methods of achieving shared goals;
- ◆ Successful actions to protect and restore wild salmon populations;
- ◆ Accurate monitoring to ensure progress and accountability; and
- ◆ Sufficient funding support to sustain protection and restoration efforts of the key participants.

The Shared Strategy is not a top-down approach to wild salmon recovery, but rather a cooperative effort that links ongoing wild salmon recovery initiatives at the tribal, state, federal and local levels to create a plan that is viable and cost-effective. It establishes, organizes and manages these links; identifies necessary long and short-term actions and coordinates funding needs; and proposes laws or policies needed to support wild salmon recovery.

The Shared Strategy recognizes that the management of habitat, harvest and hatcheries cannot be addressed in isolation. For example, harvest management has responded – and must continue to respond – to wild stock declines. However, when long-term problems are rooted primarily in habitat degradation, rather than overfishing, further restrictions in fisheries will not restore depressed stocks to their full productive potential. The answer lies in a comprehensive approach of addressing all impacts to weak stocks, including protecting productive habitat and restoring degraded habitat.

State and tribal salmon harvests are developed and conducted to ensure that weak stocks receive maximum protection from unintended harvest through restrictions such as length of fishing time, locations and gear restrictions. Fisheries managers have strict guidelines for minimizing impacts on weak stocks and they have established a solid track record in achieving those protections. While harvest management by itself will not recover wild salmon, harvest will be constrained to levels that will not impede the level of recovery that will occur if habitat restoration and protection are successful.

The Shared Strategy recovery planning process is occurring in concert with hatchery reform efforts that are designed to reduce conflicts between hatchery and wild stocks. Hatchery practices and production will be integrated into the Shared Strategy recovery plan and will ensure management of hatcheries does not impede recovery. In some watersheds, hatcheries may be an important feature of a recovery plan, and thereby contribute to recovery.

The Shared Strategy seeks to protect and restore adequate freshwater habitat and to ensure enough spawning adult salmon escape to use it. The goal is to restore the abundance, productivity and diversity of salmon stocks originating in Puget Sound and the Washington coast to levels that can sustain treaty and non-treaty fisheries.

Watershed recovery plans developed through the Shared Strategy are designed to be flexible and adaptive, with the ability to incorporate new information as it becomes available. The plans can provide standards for hatchery production and habitat maintenance, and they are goal-oriented, with performance based on annual monitoring.

The Shared Strategy has an ambitious timeline and is on track to deliver a draft recovery plan by June 2005. In the past four years, much has been accomplished. An outline of the recovery plan has been prepared, implementation guidelines for watersheds have been created, and planning ranges and targets have been provided to all watersheds with chinook populations.

To date, 13 of 14 watersheds have agreed to submit a local chapter to a regional recovery plan by June 2004; the remaining watershed is exploring how to organize its planning activities to participate. Watershed planners presented their preliminary views on what is required to achieve the planning ranges and targets in their watersheds at a benchmark meeting in November 2003. Planners also outlined their likely watershed goals and the progress they believe they can make toward recovery. In addition, key participants at the watershed, regional, state and federal levels have begun discussions about how to integrate harvest and hatchery management plans into the recovery plan.

Hatchery Reform

As wild salmon stocks have declined, tribal, state and federal governments have become dependent on hatcheries to provide a meaningful level of harvest for Indian and non-Indian fishermen. Treaty Indian tribes and the State of Washington today operate the largest salmon hatchery system in the world.

The listing of several Puget Sound and coastal salmon stocks under the federal Endangered Species Act placed a spotlight on all activities that may harm wild salmon, including hatchery programs. In response, Congress launched the Puget Sound and Coastal Washington Hatchery Reform Project. The Hatchery Reform Project is a systematic, science-driven examination of how hatcheries can help recover and conserve naturally spawning salmon populations and support sustainable fisheries.

The project has two purposes:

- ◆ Helping to recover and conserve naturally spawning populations; and
- ◆ Supporting sustainable fisheries.

With the support of Congress and the State of Washington, considerable progress has been made in the four years that the Hatchery Reform Project has been under way.

Initial research has been funded – and is being carried out – to address the knowledge gaps about how hatcheries affect wild stocks. The Hatchery Scientific Review Group – an independent scientific panel appointed to guide the Hatchery Reform effort – has funded four rounds of research projects totaling over \$2 million. The projects will examine hatchery impacts and the use of hatcheries as tools of conservation.

Examples of tribal projects funded through Hatchery Reform include:

- ◆ Using semi-natural rearing techniques at the Suquamish Tribe's Gorst Creek hatchery to produce a salmon more able to survive in the wild.
- ◆ Utilizing otolith (ear bone) marking technology to quickly and efficiently mass mark all of the chinook salmon produced at the Tulalip Tribes' Bernie Kai Kai Gobin Hatchery.
- ◆ Tracking by the Quinault Indian Nation of the success of coho raised in natural and semi-natural ponds.
- ◆ Installing a new fish ladder at the Nisqually Tribe's Kalama Creek hatchery to make it easier for returning adult chinook to get back to the hatchery.

For each of their chinook hatcheries, tribes and the Washington Department of Fish and Wildlife have completed Hatchery Genetic Management Plans. These plans form the basis of a conservation plan that the NOAA Fisheries will consider for Section 4(d) coverage under the Endangered Species Act. Section 4(d) prohibits taking a listed salmon or steelhead, except in cases where the take is associated with an approved program.

There is a clear sense among decision makers that with an understanding of the history of hatcheries, a vision for how hatcheries can be managed differently in the future, and a comprehensive strategic plan that is based on solid science, there is good cause for optimism about the benefits of hatchery reform.

Pacific Coastal Salmon Recovery Program

Congress created the Pacific Coastal Salmon Recovery Program (PCSRP) in 2000 to provide much-needed assistance to tribes as participants in growing salmon recovery efforts in the region. The need for tribal resources is critically important as the region moves forward to develop a salmon recovery plan through the Shared Strategy, which cannot succeed without meaningful tribal participation at all levels.

Tribal projects funded through PCSRP fall under the broad categories of:

- ◆ Salmon habitat restoration projects that protect, preserve, restore and enhance salmon habitat and watershed functions;
- ◆ Salmon planning and assessments, including watershed assessments, sub-basin planning, mapping and inventories for development of recovery plans;
- ◆ Salmon enhancement, including stock supplementation and artificial propagation;
- ◆ Salmon research and monitoring, including investigations, studies and validation monitoring; and
- ◆ Outreach and education, including workshops, forums, preparation of educational materials, training and citizen participation.

Most tribal salmon recovery efforts are conducted in cooperation with state, local, federal or private sector entities to more effectively utilize limited tribal resources.

A few examples of tribal projects funded through PCSRP include:

- ◆ The tracking and removal of derelict fishing gear by the Stillaguamish Tribe from the Port Susan area of northern Puget Sound.
- ◆ The use of an advanced sonar system by the Puyallup Tribe of Indians to track returning adult salmon on the Puyallup River.
- ◆ Smolt trapping on the Hamma Hamma River to track the recovery of Hood Canal summer chum by the Port Gamble S'Klallam and Skokomish tribes.

Salmon And Steelhead Habitat Inventory And Assessment Project (SSHIAP)

Habitat is key to wild salmon recovery. The Salmon and Steelhead Habitat Inventory and Assessment Project (SSHIAP), a joint effort of the treaty tribes and State of Washington since 1995, is providing a blueprint for joint tribal/state action to define a cooperative process to implement habitat and restoration strategies by documenting and quantifying past and current habitat conditions; providing a consistent framework for data analysis; assessing the role of habitat loss and

degradation on the condition of salmon and steelhead stocks; and assisting in the development of stock- or watershed-specific strategies for habitat protection and restoration.

State salmon recovery legislation includes SSHIAP as the basis for prioritizing salmon recovery projects and as the repository and analysis tool for habitat monitoring information. SSHIAP products include descriptions of the location, amount and current condition of habitats used at various stages in the life of salmon and steelhead, historic habitat loss, and the natural and man-made factors contributing to habitat loss and degradation.

The program has provided information for use in a number of processes, including: Timber/Fish/Wildlife Watershed Analysis; The Washington Department of Fish and Wildlife/ Washington Department of Transportation salmonid passage database; and development of salmon recovery goals by co-managers using the Ecosystem Diagnosis and Treatment model.

Conclusion

The goal of the treaty Indian tribes in western Washington is to achieve salmon recovery for all depressed salmon stocks in all areas so that they can sustain harvest. Tribes are focusing their regional salmon recovery efforts through the Shared Strategy because – with the endorsement and participation by the National Marine Fisheries Service – it provides the best chance to reach that goal. Wild salmon populations did not decline overnight, and their recovery will be neither quick nor easy. It will take cooperation, much hard work, adequate funding and time to return their numbers to abundance.

For More Information

For more information about the natural resource management activities of the treaty Indian tribes in western Washington, contact the Northwest Indian Fisheries Commission, 6730 Martin Way E., Olympia, WA 98516; or call (360) 438-1180. Visit the NWIFC home page at www.nwifc.org.